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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,516	01/16/2002	Xianqiang Li	26757-710	1568

21971 7590 03/20/2003

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EXAMINER	
CHAKRABARTI, ARUN K	

ART UNIT	PAPER NUMBER
1634	

DATE MAILED: 03/20/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
10/053,516	Li
Examiner	**Art Unit**
Arun Chakrabarti	1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Mar 19, 2002* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-9* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Detailed Action*

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102 (b) as being anticipated by O'Hare et al. (PCT International Publication Number WO 00/08182) (February 17, 2000).

O'Hare et al. teaches a method for screening agents that affects protein degradation rates (Abstract), the method comprising:

a) taking a library of cells expressing a fusion protein comprising a reporter protein and a protein encoded by a sequence from a cDNA library derived from a sample of cells, the sequence from the cDNA library varying within the cell library (Page 2, line 4 to page 3, line 24 and Figure 1);

b) contacting the library of cells with a plurality of agents which may affect protein degradation rates (Page 4, lines 1-33);

c) for each agent, selecting cells in the library which express short-lived proteins based on whether the cells have different reporter signal intensities than other cells in the library, the

difference being indicative of the selected cells expressing shorter lived fusion proteins than the fusion proteins than the fusion proteins expressed by the other cells in the library (Page 4, lines 1-33); and

d) characterizing the fusion proteins expressed by the selected cells for each agent (Page 4, lines 1-33 and Claim 7 and Figure 2).

O'Hare et al. teaches a method, wherein the method further comprises comparing which fusion proteins are expressed by the selected cells for each agent (Page 4, lines 1-33).

O'Hare et al. inherently teaches a method for monitoring effects different growth conditions have on expression of short-lived proteins (Abstract), the method comprising:

a) exposing samples of cells to different growth conditions (Page 2, line 4 to page 3, line 24 and Figure 1);

b) forming cDNA libraries from the sample of cells after exposure to the different growth conditions (Page 5, line 26 to page 12, line 23);

c) forming a library of cells for each cDNA library, the cells in the library expressing a fusion protein comprising a reporter protein and a protein encoded by a sequence from a cDNA library derived from a sample of cells, the sequence from the cDNA library varying within the cell library (Page 5, line 26 to page 12, line 23);

d) for each library of cells, identifying cells within the library that express fusion proteins that are degraded in vivo more rapidly than other fusion proteins (Page 5, line 26 to page 12, line 23), and

e) characterizing fusion proteins expressed by the identified cells (Page 2, line 4 to page 3, line 24); and

f) comparing which fusion proteins are characterized for each library of cells, differences in the characterized fusion proteins indicating differences in the short-lived proteins expressed by when the cells are exposed to the different agents (Page 2, line 4 to page 3, line 24 and Figure 1).

O'Hare et al. teaches a method, wherein exposing the samples of cells to different conditions comprises exposing the cells to different agents (Page 2, line 4 to page 3, line 24 and Claim 7).

O'Hare et al. teaches a method, wherein identifying cells within the library that express fusion proteins that are degraded in vivo more rapidly than other fusion proteins comprises:

a) modifying a rate of protein expression or degradation by the cells (Page 5, line 26 to page 12, line 23 and Page 2, line 4 to page 3, line 24), and

b) selecting a population of the cells based on whether the cells have different reporter signal intensities than other cells after the rate of protein expression or degradation has been modified, the difference being indicative of the selected population of cells expressing shorter lived fusion proteins than the fusion proteins expressed by the other cells in the library (Page 5, line 26 to page 12, line 23 and Page 2, line 4 to page 3, line 24).

O'Hare et al. teaches a method for partitioning the library of cells into populations of cells based on an intensity of a reporter signal from the fusion protein such that cells partitioned into a

given population have a reporter signal within a desired range of reporter signal intensity (Page 5, line 26 to page 12, line 23).

O'Hare et al. teaches a method for screening for differences in short-lived proteins expressed by first and second cell samples (Page 7, line 15 to page 8, line 7), the method comprising:

a) forming cDNA libraries from the sample of cells after exposure to the different growth conditions (Page 5, line 26 to page 12, line 23);

c) forming a library of cells for each cDNA library, the cells in the library expressing a fusion protein comprising a reporter protein and a protein encoded by a sequence from a cDNA library derived from a sample of cells, the sequence from the cDNA library varying within the cell library (Page 5, line 26 to page 12, line 23);

d) for each library of cells, identifying cells within the library that express fusion proteins that are degraded in vivo more rapidly than other fusion proteins (Page 5, line 26 to page 12, line 23), and

e) characterizing fusion proteins expressed by the identified cells (Page 2, line 4 to page 3, line 24); and

f) comparing which fusion proteins are characterized for each library of cells, differences in the characterized fusion proteins indicating differences in the short-lived proteins expressed by when the cells are exposed to the different agents (Page 2, line 4 to page 3, line 24 and Figure 1).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun Chakrabarti, Ph.D., whose telephone number is (703) 306-5818. The examiner can normally be reached on 7:00 AM-4:30 PM from Monday to Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion, can be reached on (703) 308-1119. The fax phone number for this Group is (703) 305-7401. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group analyst Chantae Dessaua who can be reached at (703) 605-1237.

Arun Chakrabarti,

Patent Examiner,

March 24, 2003

ARUN K. CHAKRABARTI
PATENT EXAMINER